

REMARKS

Claims 1, 4, 19, 21, and 36 have been amended.

Claims 1-40 are present in the subject application.

In the Office Action dated July, 21, 2010, the Examiner has rejected claims 1-3, 8-10, 13, 16, 19, 20, 25-27, 30, 33, and 36-38 under 35 U.S.C. §102(b), and has rejected claims 4-7, 11, 12, 17, 18, 21-24, 28, 29, 34, 35, 39, and 40 under 35 U.S.C. §103(a). Favorable reconsideration is respectfully requested in view of the following remarks.

REJECTIONS UNDER 35 U.S.C. §102

The Examiner has rejected claims 1-3, 8-10, 13, 16, 19, 20, 25-27, 30, 33, and 36-38 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Application Publication No. 2001/0029166 (Rune et al).

Briefly, present invention embodiments are directed towards synchronizing time of day (TOD) information between radio nodes of a network and detecting and merging otherwise isolated radio networks. In this manner, individual isolated networks are able to start when they are ready and once connectivity is detected with another network, the two networks can merge. Radio nodes within each network periodically send out TOD messages and periodically receive TOD messages issued by other nodes to identify networks within communication range. Upon detecting another network, a radio node informs a central control node that uses network detection information received from its members to determine the extent of the connectivity between the two networks and whether to merge the two networks. Network searching is

optimized to limit impact on the overall network performance, resulting in little or no degradation in network performance.

The Examiner takes the position that all of the features recited in these claims are disclosed by the Rune et al. publication.

This rejection is respectfully traversed. However, in order to expedite prosecution of the subject application, independent claims 1, 19, and 36 have been amended to further clarify that the Time of Day synchronization mode of the communication unit is different from that of the neighboring communication network, and recite the features of controlling merger between the communication unit (or network) operating in a first Time of Day synchronization mode and a neighboring communication network operating in a second Time of Day synchronization mode that is different from the first mode. Support for these features can be found throughout the specification and drawings.

The Rune et al. publication does not disclose, teach or suggest these features. Rather, the Rune et al. publication discloses intelligent piconet forming. When connecting a unit to one or more existing ad hoc wireless networks comprising several units (e.g., the units adapted to communicate according to the Bluetooth specification and the network then being formed according to the same specification to comprise one or more piconets), a unit can discover the units which are the masters in the networks, and then connect as a slave to those masters.

Thus, the Rune et al. publication discloses forming of networks with the same specification. Accordingly, there is no disclosure, teaching or suggestion of controlling merger between the communication unit (or network) operating in a first Time of Day synchronization

AMENDMENT IN RESPONSE TO OFFICE ACTION MAILED JULY 21, 2010
APPLICATION NO. 10/690,552

mode and a neighboring communication network operating in a second Time of Day synchronization mode that is different from the first mode as recited in independent claims 1, 19, and 36.

Since the Rune et al. publication does not disclose, teach or suggest the features recited within independent claims 1, 19, and 36 as discussed above, these claims are considered to be in condition for allowance.

Dependent claims 2, 3, 8-10, 13, 16, 20, 25-27, 30, 33, 37, and 38 depend, either directly or indirectly, from independent claims 1, 19, or 36 and, therefore, include all the limitations of their parent claims. These dependent claims are considered to be in condition for allowance for substantially the same reasons discussed above in relation to their parent claims, and for further limitations recited in the dependent claims.

REJECTIONS UNDER 35 U.S.C. §103

The Examiner has rejected claims 4-7, 11, 12, 21-24, 28, and 29 under 35 U.S.C. §103(a) as being unpatentable over the Rune et al. publication in view of Applicant's Admitted Prior Art (AAPA).

Initially, claims 4 and 21 have been amended to properly correspond with the amendments made to their parent claims 1 and 19. These amendments are not intended to materially alter the scope of the claims.

AMENDMENT IN RESPONSE TO OFFICE ACTION MAILED JULY 21, 2010
APPLICATION NO. 10/690,552

The present invention embodiments are directed towards synchronizing time of day (TOD) information between radio nodes of a network and detecting and merging otherwise isolated radio networks as described above.

The Examiner takes the position that the Rune et al. publication discloses the claimed subject matter, except for the feature of a synchronization module to determine a Time of Day synchronization mode used by the communication unit. The Examiner further alleges that AAPA (i.e., Page 1, lines 9-28 of the present application) teaches this feature, and that it would have been obvious to combine the teaching of AAPA with the disclosure of the Rune et al. publication to attain the claimed invention.

This rejection is respectfully traversed. Initially, claims 4-7, 11, 12, 21-24, 28, and 29 depend, either directly or indirectly, from independent claims 1 or 19 and, therefore, include all the limitations of their parent claims. As discussed above, the Rune et al. publication does not disclose, teach or suggest the features of controlling merger between the communication unit (or network) operating in a first Time of Day synchronization mode and a neighboring communication network operating in a second Time of Day synchronization mode that is different from the first mode as recited in the claims.

The alleged admitted prior art of the specification does not compensate for the deficiencies of the Rune et al. publication. Rather, the specification discloses that conventional tactical radio systems, such as the NTDR (Near Term Data Radio) system, built by ITT, can operate with two different TOD algorithms. Selection of a TOD algorithm is based on a parameter in a pre-defined radio configuration. The primary TOD mode is global positioning

system (GPS) based TOD, in which network TOD is slaved to GPS time. A secondary TOD mode, that is used when GPS is not available, is Brigade Time Head (BTH) based TOD (e.g., See Page 1, lines 12 - 17). The specification further discloses clock synchronization techniques for WPAN and WLAN networks (e.g., See Page 2, lines 5 - 11). However, the specification expressly indicates that there is no merge mechanism in the existing approaches to combine a BTH based network with other BTH network(s) or GPS based network(s) (e.g., See Page 8, lines 25 - 26).

Accordingly, the Rune et al. publication and alleged admitted prior art considered independently or in combination, fail to disclose, teach, or suggest the features of controlling merger between the communication unit (or network) operating in a first Time of Day synchronization mode and a neighboring communication network operating in a second Time of Day synchronization mode that is different from the first mode as recited in the claims.

Since the Rune et al. publication and alleged admitted prior art do not disclose, teach or suggest, either alone or in combination, the features recited in claims 4-7, 11, 12, 21-24, 28, and 29 as discussed above, these claims are considered to be in condition for allowance.

The Examiner has rejected claims 17, 18, 34, 35, 39, and 40 under 35 U.S.C. §103(a) as being unpatentable over the Rune et al. publication in view of U.S. Patent Application Publication No. 2004/0033778 (Fonseca et al.).

The present invention embodiments are directed towards synchronizing time of day (TOD) information between radio nodes of a network and detecting and merging otherwise isolated radio networks as described above.

AMENDMENT IN RESPONSE TO OFFICE ACTION MAILED JULY 21, 2010
APPLICATION NO. 10/690,552

The Examiner takes the position that the Rune et al. publication discloses the claimed subject matter, except for the feature of comparing a number of active communication units in the neighboring communication network with a number of total communication units in the neighboring communication network. The Examiner further alleges that the Fonseca et al. publication teaches this feature, and that it would have been obvious to combine the teaching of the Fonseca et al. publication with the disclosure of the Rune et al. publication to attain the claimed invention.

This rejection is respectfully traversed. Initially, claims 17, 18, 34, 35, 39, and 40 depend, either directly or indirectly, from independent claims 1, 19, or 36 and, therefore, include all the limitations of their parent claims. As discussed above, the Rune et al. publication does not disclose, teach or suggest the features of controlling merger between the communication unit (or network) operating in a first Time of Day synchronization mode and a neighboring communication network operating in a second Time of Day synchronization mode that is different from the first mode as recited in the claims.

The Fonseca et al. publication does not compensate for the deficiencies of the Rune et al. publication. Rather, the Fonseca et al. publication discloses a method and apparatus for relaying information between two separate networks sharing a relaying remote unit, and is merely utilized by the Examiner for an alleged teaching of having more active users in a network and that, as the percentage of active users increases, there is reduction in average power consumption.

AMENDMENT IN RESPONSE TO OFFICE ACTION MAILED JULY 21, 2010
APPLICATION NO. 10/690,552

Since the Rune et al. publication and the Fonseca et al. publication do not disclose, teach or suggest, either alone or in combination, the features recited in claims 17, 18, 34, 35, 39, and 40, these claims are considered to be in condition for allowance.

The Examiner has rejected claims 14, 15, 31, and 32 under 35 U.S.C. §103(a) as being unpatentable over the Rune et al. publication in view of U.S. Patent Application Publication No. 2005/0243765 (Schrader et al.).

This rejection is respectfully traversed since the Schrader et al. publication has been sworn behind by the Declaration under 37 C.F.R. §1.131 filed on June 29, 2010.

The Examiner asserts that the Declaration has been considered but is ineffective to overcome the Schrader et al. publication. The Examiner further alleges that the evidence submitted is insufficient to establish diligence from a date prior to the date of reduction to practice of Schrader et al. to either a constructive reduction to practice or an actual reduction to practice. In addition, the Examiner alleges that the subject Declaration does not show any dates supporting diligence *after* the date of reduction to practice of Schrader to the constructive reduction to practice.

These indications are respectfully traversed. According to 37 C.F.R. §1.131(b), the showing of facts shall be such, in character and weight, as to establish reduction to practice prior to the effective date of the reference, or conception of the invention prior to the effective date of the reference coupled with due diligence from prior to said date to a subsequent reduction to practice or to the filing of the application. Original exhibits of drawings or records, or

AMENDMENT IN RESPONSE TO OFFICE ACTION MAILED JULY 21, 2010
APPLICATION NO. 10/690,552

photocopies thereof, must accompany and form part of the affidavit or declaration or their absence must be satisfactorily explained.

The subject Declaration, filed on June 29, 2010, clearly establishes conception of the invention prior to the effective date of the reference (Schrader et al.), as evidenced by the materials submitted in Exhibit A, and is coupled with due diligence from prior to the reference date to the filing of the application as evidenced by the acts presented in item 3. With regard to dates supporting due diligence relative to the Schrader publication (i.e., July 25, 2003), the declaration expressly indicates that the following events occurred after conception and prior to the reference date: outside counsel was instructed to perform a search, the search results were received, and a final decision was rendered to proceed with a patent application. Further, the Declaration includes dates for each of these events. In the interval between rendering of the final decision (prior to the reference date) and filing of an application (after the reference date), outside patent counsel diligently prepared the application for filing on October 23, 2003. Accordingly, the Declaration provides with sufficient detail and specificity the events and dates for due diligence from prior to the reference date to the filing date.

Accordingly, the Declaration is considered sufficient to antedate the Schrader et al. publication, and claims 14, 15, 31, and 32 are considered to be in condition for allowance.

In view of the foregoing, Applicants respectfully request the Examiner to find the application to be in condition for allowance with claims 1-40. However, if for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is

AMENDMENT IN RESPONSE TO OFFICE ACTION MAILED JULY 21, 2010
APPLICATION NO. 10/690,552

respectfully requested to call the undersigned attorney to discuss any unresolved issues and to expedite the disposition of the application.

Applicants hereby petition for any extension of time that may be necessary to maintain the pendency of this application. The Commissioner is hereby authorized to charge payment of any additional fees required for the above-identified application or credit any overpayment to Deposit Account No. 05-0460.

Dated: 10/12/10

Respectfully submitted by:

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